

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
26 May 2005 (26.05.2005)

PCT

(10) International Publication Number
WO 2005/047338 A1

(51) International Patent Classification⁷: C07K 19/00,
14/15, A61K 38/00

Moksang-dong, Daedeok-gu, Daejeon 306-762 (KR).
HONG, Hyojeong [KR/KR]; Crova Apt. 117-201, Dunsan-1-dong, Seo-gu, Daejeon 302-772 (KR).

(21) International Application Number:

PCT/KR2004/000545

(74) Agents: JANG, Seongku et al.; 19th Fl., KEC Building, #275-7, Yangjae-dong, Seocho-ku, Seoul 137-130 (KR).

(22) International Filing Date: 15 March 2004 (15.03.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10-2003-0079897

12 November 2003 (12.11.2003) KR

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(71) Applicant (for all designated States except US): INJE UNIVERSITY [KR/KR]; #85, Jeo-dong 2-ga, Jung-gu, Seoul 100-032 (KR).

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KIM, Yeon-Soo [KR/KR]; Yuwon Apt. 101-1607, #1687, Seocho-4-dong, Seocho-gu, Seoul 137-780 (KR). SO, In Seop [KR/KR]; Sejong Apt. 101-907, Jeonmin-dong, Yuseong-gu, Daejeon 305-728 (KR). LEE, Young-Kwan [KR/KR]; Cheonggunarae Apt. 110-1004, Jeonmin-dong, Yuseong-gu, Daejeon 305-729 (KR). KIM, Jongpil [KR/KR]; Hanaro Apt., 107-1205, Wolpyung-3-dong, Seo-gu, Daejeon 302-748 (KR). KANG, Moonkyung [KR/KR]; Dongwon Sangroksu Apt. 104-502, #185-1,

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CANCER CELL TARGETING GENE DELIVERY METHOD

HCMV Promoter

1		GALV ENV	685 AA
2		pHEFvGEL199	956 AA

MCMV Promoter

1		GALV ENV	685 AA
2		pMEFvGEL199	956 AA

(57) Abstract: The inventive chimeric ligand in the form of a fusion polypeptide of a single-chain antibody specific for Tag-72 surface antigen and GaLV envelope glycoprotein shows high transduction efficiency to cancer cells, specifically infects target cells and efficiently delivers a therapeutic gene. Accordingly, the inventive chimeric ligand can be effectively used for gene therapy to inhibit tumor growth and metastasis.

WO 2005/047338 A1